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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHAPIRO, JEFFERY A

ART UNIT PAPER NUMBER

3653

DATE MAILED: 11/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/774,671

Applicant(s)

LIU ET AL.

Examiner

Jeffrey A. Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☒ Claim(s) 11-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/17/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "134" has been used to designate both the magnet shown in figures 14a and 14b and the cover magnet shown in figure 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered Claims 11-17(first) been renumbered as Claims 10-16 respectively. Therefore, Claim 17(second) will remain as Claim 17.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. It is unclear which magnet is being referred to. For example, it is not clear if the magnet of the validator, (54) as illustrated in figure 2, magnet of the cover (134) as illustrated in figure 2 or the magnet (134) which detects thickness of an incoming sheet,

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as shown in figure 13, is the devices being claimed. As can be seen from figures 2 and 13, all three of these devices are significantly different.

8. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how the magnet can be coupled to the document and still allow it to move through the document path. It is also unclear whether it is intended to mechanically couple the magnet to the document or to a cover.

9. Claims 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Since Claim 13 is unclear as to whether the magnet is coupled to the document or the cover, Claims 20 and 21 are rejected as under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

11. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled

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in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "document guide" in claim 4 is used by the claim to mean a "guide" which guides the magnet, while the accepted meaning is "a document path" or a "wall or plate" that guides the sheet/document. The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. **Claims 1-7, 12-16 and 22**, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Carlson et al (US 3,159,277).

Regarding **Claims 1, 12 and 22**, Carlson discloses a bill validator having a magnet (244) mechanically coupled to a document path (see figure 4), that moves from a first position to a second position solely through the mechanical coupling in response to a user accessing the document path to insert a document. Because the magnetism of magnet (244) causes first and second control signals to cause relays (428 and 462, for example) to close. These are construed as latches. Note that switches (274 and 278) are also tripped. See col. 18, line 67-col. 19, line 65.

Concerning **Claims 2, 3, 13 and 14**, note that upon passing of the first validation signal from (244), relay coil (428), for example, becomes de-energized. See col. 19,

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lines 20-44. Upon the passing of the second validation signal from (244), the relay coin (428) is energized. See col. 19, lines 45-65. Note that once the bill is validated, and a transaction is made in the vending machine, the system is reset.

As described in **Claim 4**, note rails (240) on which guides (243) ride.

Regarding **Claims 5 and 15**, note that roller assembly (323), which includes roller (326) is construed as a rotatable disk assembly.

Regarding **Claim 6, 7 and 16**, note from figure 12, that roller (326) has two other disks on either side of said roller on support shaft (324).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 10, 11, 20 and 21, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson et al (US 3,159,277) in view of Mukai (US 6,823,995 B2).

Carlson discloses the bill validator described above. As described in **Claims 10, 11, 20 and 21**, Carlson does not expressly disclose, but Mukai discloses a cover (914) that rotates to a position that blocks an entrance to a document path and is mechanically coupled to a magnet (9141) controlled by controller (915). See Mukai, figure 4. Note that magnet (9141) must have a switch in order to work. In fact, the

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appendage shown in figure 4 emanating from gate (914) to the middle of magnet (9141) is construed as a switch.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have installed a gate and magnet to close off a particular document path in Carlson's bill validator, as taught by Mukai.

The suggestion/motivation would have been to close off a document path.

17. Claims 1, 8, 9, 13 and 17-19, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson in view of Eom (US 6,381,423 B1).

Carlson discloses a bill validator. Carlson does not expressly disclose, but Eom discloses a magnet (40) mechanically coupled to a document path (34), the magnet moving from a first position to a second position (vertical), thus activating a switch signal sent to A/D converting unit, thus releasing a latch that activates or deactivates the validator. See figure 4 of Eom. Note also that Eom has a disk (35a) that rotates on a shaft and that has a spring or functional equivalent thereof. Note also that disk guides, or functional equivalents, must be used to guide Eom's magnet and disk toward and away from the document path. Note also Carlson's guides (240) and (243).

At the time of the invention, it would have been obvious to one of ordinary skill to have used the thickness detector as taught by Eom in Carlson's bill validator.

The suggestion/motivation would have been to detect documents that are too thick to be processed.

Conclusion

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18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nemura '042 is cited as another example of a movable magnet placed near a document path.


19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAS

November 3, 2006


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